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(71) Applicant: **NATIONAL INSTITUTE OF ADVANCED INDUSTRIAL & TECHNOLOGY**
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(54) **OPTICAL TRANSMISSION MEDIUM**

(57) Abstract:

PROBLEM TO BE SOLVED: To apply nonlinear optical characteristics of a carbon nanotube to an optical communication field.

SOLUTION: The optical transmission medium 12 obtained by including the carbon nanotube having optical nonlinear characteristics into a nonlinear optical transmission medium is used by incorporating the medium between general optical transmission media (14a and 14b) and by being combined with an optical circulator 16, by which the optical transmission medium is made usable as an optical fuse (a breaker) to allow the transmission of normal signal light A and, on the other hand, to shut off the transmission of undesirably generated abnormal intensity light.

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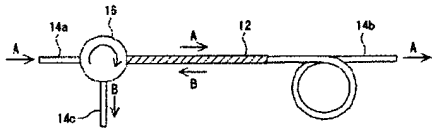

12 : SWNT含有光伝送媒体　14a, 14b, 14c : 光伝送媒体
16 : 光サーキュレータ

この発明の実施の形態の説明に供する図

OPatent

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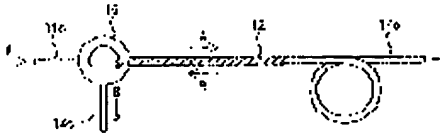

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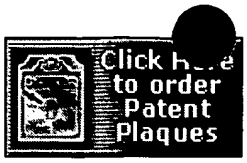

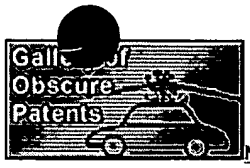

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